

seqlist.ST25.txt  
SEQUENCE LISTING

<110> Clark, Abbot F.  
Wordinger, Robert J.

<120> Methods for Diagnosing Glaucoma and Discovering Anti-Glaucoma Drugs

<130> 1581 US F

<140> 09/308,295  
<141> 1999-05-17

<150> PCT/US97/21054  
<151> 1997-11-14

<150> USSN 60/033,227  
<151> 1996-12-05

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<170> PatentIn version 3.1

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seqlist.ST25.txt

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| ucucugggga  | cucugaacuu | cccuggucga  | acaguuuuuu | cuaauggcua  | uucagcccc  | 1320 |
| agcaugagac  | cagauguaag | cucuccucca  | uccagcuccu | caacagcaac  | aacaggacca | 1380 |
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| ugggcaaagg  | caauaccagg | uuucaggaac  | uuacaccugg | augaccaaau  | gacccuacug | 1920 |
| caguacuccu  | ggauuguucu | uauugcauuu  | gcucuggggg | ggagaucaua  | uagacaauc  | 1980 |
| agugcaaac   | ugcuguguuu | ugcuccugau  | cugauuuuu  | augagcagag  | aaugacucua | 2040 |
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seqlist.ST25.txt

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195 200 205

Asn Glu Ser Pro Trp Arg Ser Asp Leu Leu Ile Asp Glu Asn Cys Leu  
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Leu Ser Pro Leu Ala Gly Glu Asp Asp Ser Phe Leu Leu Glu Gly Asn  
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Ser Asn Glu Asp Cys Lys Pro Leu Ile Leu Pro Asp Thr Lys Pro Lys  
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Ile Lys Asp Asn Gly Asp Leu Val Leu Ser Ser Pro Ser Asn Val Thr  
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Leu Pro Gln Val Lys Thr Glu Lys Glu Asp Phe Ile Glu Leu Cys Thr  
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Pro Gly Val Ile Lys Gln Glu Lys Leu Gly Thr Val Tyr Cys Gln Ala  
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Ser Phe Pro Gly Ala Asn Ile Ile Gly Asn Lys Met Ser Ala Ile Ser  
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seqlist.ST25.txt

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Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe Lys Arg Ala  
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Glu Asn Pro Gly Asn Lys Thr Ile Val Pro Ala Thr Leu Pro Gln Leu  
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Thr Pro Thr Leu Val Ser Leu Leu Glu Val Ile Glu Pro Glu Val Leu  
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Tyr Ala Gly Tyr Asp Ser Ser Val Pro Asp Ser Thr Trp Arg Ile Met  
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Met Thr Leu Leu Gln Tyr Ser Trp Met Phe Leu Met Ala Phe Ala Leu  
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Asp Gln Cys Lys His Met Leu Tyr Val Ser Ser Glu Leu His Arg Leu

seqlist.ST25.txt

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seqlist.ST25.txt

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| ucugccauuu  | cuguucaugg  | ugugaguacc  | ucuggaggac | agauguacca | cuaugacaug | 1140 |
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| uaauauaucc  | cagaaauuag  | aaaccuuauu  | auguggagcu | aaucuccaca | gucaaagaag | 2760 |
| gauggcaccu  | aaaccaccag  | ugcccaaagu  | cugugugaug | aacuuucucu | ucauacuuuu | 2820 |
| uuucacaguu  | ggcuggauga  | aauuuucua   | acuuucuguu | gguguaucuu | ccccuguaa  | 2880 |
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seqlist.ST25.txt

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| acagcuguuu | aagaugggca | gcugauucgu | agcuuuccca | aaauaacucu  | aaacauuaau | 3120 |
| caaucaucug | ugugaaaaug | gguggugucu | ucuaaccuga | uggcacuuag  | cuaucagaag | 3180 |
| accacaaaaa | uugacucaaa | ucuccaguau | ucuugucaaa | aaaaaaaaaa  | aaaaagcuca | 3240 |
| uauuuuguan | auaucugcuu | caguggagaa | uuauauaggu | ugugcaauu   | aacaguccua | 3300 |
| acugguauag | agcaccuagu | ccagugaccu | gcuggguaaa | cuguggauga  | ugguugcaaa | 3360 |
| agacuaauuu | aaaaaaauac | uaccaagagg | cccugucugu | accuaacgcc  | cuauuuuugc | 3420 |
| aauggcuaua | uggcaagaaa | gcugguaaac | uauuugucuu | ucaggaccuu  | uugaaguagu | 3480 |
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| uuaaaaauau | ggaacuucua | auauauuuuu | auauuuaguu | auaguuuucag | auauauauca | 4020 |
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| augauuuaua | guuuguacau | gcauucac   | aggcagcgau | ggucucagaa  | accaaacagu | 4260 |
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| cauagguugc | caauaaucua | cuaauuccuu | ucuauccuac | aacaagaguu  | uauuuccaaa | 4680 |
| uaaaaugagg | acauguuuuu | guuuucuuug | aaugcuuuuu | gauguuuuu   | uguuuuuuuc | 4740 |
| aguauuuugg | agaaauuuuu | uaauaaaaaa | acaaucauuu | gcuuuuug    |            | 4788 |



seqlist.ST25.txt

<211> 777  
 <212> PRT  
 <213> homo sapiens

<400> 4

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35          40          45
Ala Val Ala Ser Gln Ser Asp Ser Lys Gln Arg Arg Leu Leu Val Asp
50          55          60
Phe Pro Lys Gly Ser Val Ser Asn Ala Gln Gln Pro Asp Leu Ser Lys
65          70          75          80
Ala Val Ser Leu Ser Met Gly Leu Tyr Met Gly Glu Thr Glu Thr Lys
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Val Met Gly Asn Asp Leu Gly Phe Pro Gln Gln Gly Gln Ile Ser Leu
100         105         110
Ser Ser Gly Glu Thr Asp Leu Lys Leu Leu Glu Glu Ser Ile Ala Asn
115         120         125
Leu Asn Arg Ser Thr Ser Val Pro Glu Asn Pro Lys Ser Ser Ala Ser
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Ser Asp Val Ser Ser Glu Gln Gln His Leu Lys Gly Gln Thr Gly Thr
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Ile Leu Gln Asp Leu Glu Phe Ser Ser Gly Ser Pro Gly Lys Glu Thr
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Asn Glu Ser Pro Trp Arg Ser Asp Leu Leu Ile Asp Glu Asn Cys Leu
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seqlist.ST25.txt

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Ile Lys Asp Asn Gly Asp Leu Val Leu Ser Ser Pro Ser Asn Val Thr  
260 265 270

Leu Pro Gln Val Lys Thr Glu Lys Glu Asp Phe Ile Glu Leu Cys Thr  
275 280 285

Pro Gly Val Ile Lys Gln Glu Lys Leu Gly Thr Val Tyr Cys Gln Ala  
290 295 300

Ser Phe Pro Gly Ala Asn Ile Ile Gly Asn Lys Met Ser Ala Ile Ser  
305 310 315 320

Val His Gly Val Ser Thr Ser Gly Gly Gln Met Tyr His Tyr Asp Met  
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Asn Thr Ala Ser Leu Ser Gln Gln Gln Asp Gln Lys Pro Ile Phe Asn  
340 345 350

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Gly Ser Gly Asp Asp Asn Leu Thr Ser Leu Gly Thr Leu Asn Phe Pro  
370 375 380

Gly Arg Thr Val Phe Ser Asn Gly Tyr Ser Ser Pro Ser Met Arg Pro  
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Asp Val Ser Ser Pro Pro Ser Ser Ser Ser Thr Ala Thr Thr Gly Pro  
405 410 415

Pro Pro Lys Leu Cys Leu Val Cys Ser Asp Glu Ala Ser Gly Cys His  
420 425 430

Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe Lys Arg Ala  
435 440 445

Val Glu Gly Gln His Asn Tyr Leu Cys Ala Gly Arg Asn Asp Cys Ile  
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Thr Thr Leu Asn Met Leu Gly Gly Arg Gln Val Ile Ala Ala Val Lys  
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Gly Trp Arg Ser Tyr Arg Gln Ser Ser Ala Asn Leu Leu Cys Phe Ala  
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Pro Asp Leu Ile Ile Asn Glu Gln Arg Met Thr Leu Pro Cys Met Tyr  
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Glu Gly Asn Ser Ser Gln Asn Trp Gln Arg Phe Tyr Gln Leu Thr Lys  
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| gcacatccag tcagaagtat ggggtaaaaa gccttttccc agcctgtcgg aagataagca  | 1980 |
| gatcagcatt gtttattttt caaagaaaac gtgcatgggt caccagttgg ttgtactcaa  | 2040 |
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| atattcactg atggactcca aagaatcatt aactcctggt agagaagaaa accccagcag  | 2640 |
| tgtgcttgct caggagaggg gagatgtgat ggacttctat aaaaccctaa gaggaggagc  | 2700 |
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| tgatacaatt | cactacatga | tttattattt | catgctggtt | ggggcagtcg | tgtgacttat | 9720  |
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| cattaggcca | ggcgcggtg  | ctcacgcctg | taatcccagc | actttgggag | gccgaggcgg | 11220 |
| gcagatcatg | aggtcaggag | attgagacca | tcctggctaa | cacggtgaaa | ccctgtctct | 11280 |
| actaaaaata | cagaaaatta | gccgggcatg | gtggctggtg | cctgtagtcc | cagctactcg | 11340 |

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seqlist.ST25.txt

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seqlist.ST25.txt

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| aacatgggtt | ctttgccttc | cactgtgagt  | gtaagtttcc  | tgaggcctcc | cagtaatgct | 17400 |
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seqlist.ST25.txt

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seqlist.ST25.txt

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seqlist.ST25.txt

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| tttattaagg  | gtgaaattta  | gtgtagagag | taaaggcatt | tggcatagaa | gcccttagtt  | 25080 |
| ttttttgttt  | ttaagttgaa  | ctgccagcct | ttatggattg | cagtcttcgc | tgttttgatt  | 25140 |
| gacatttccc  | aattcatttt  | gtattattta | tttttttaag | agacagggtc | tcactctggt  | 25200 |
| accagagctg  | gagtgcaatg  | gggcaaactt | ggatcactgc | agccttgaac | tcctgggctc  | 25260 |
| aagcaatcct  | cccacctcag  | cctcccaagt | agcttggact | ataggtgtgc | accaccatcc  | 25320 |
| ttggctaatt  | ttttaaatct  | ttttagagag | cagggtagtg | ctctgttgcc | caggctgggc  | 25380 |
| tcacattcct  | ggcctcagtt  | gatgctctgg | tctcagcctt | ccaaaatgct | gggattacaa  | 25440 |
| gtgtgagcca  | ctgcacctgg  | cccccaattt | catcctttac | aaagactact | ttcaaccata  | 25500 |
| aatcaacgga  | aacttcagct  | ccctcagaca | tatttgggat | ccaaggatat | tttcccaa    | 25560 |
| gattaatgct  | aatttcatat  | caatacattt | ttgcaaaacc | tacaaaaatg | gactagtaaa  | 25620 |
| gaaagactct  | taatttggga  | aagacagtta | cttgagagag | agagaaactt | aagaggcagg  | 25680 |
| tcgagttcag  | tgttcagaaa  | tgagaggatc | ataaagagat | agccataaaa | atgtttctcc  | 25740 |
| ctatattgcc  | tgctgatagg  | gtgtatcagt | gaaggcttta | ctaaggacct | tgtacctttt  | 25800 |
| cagcgctgca  | ctgcgtgctc  | atagggagga | aagataaatc | atgtgttttt | tctgacctca  | 25860 |
| aaggagcctg  | tatctggcta  | gagagacatg | atgcagacac | atgaaataat | taagaaacaa  | 25920 |
| ttaactgtag  | cagggtgctga | agaatatacc | aggaggtcag | agaatggtag | agctagtgtg  | 25980 |
| ggcgaaggta  | tagcccagag  | catcatcaga | tgattcttcc | ttatgcaaat | tcacatctcc  | 26040 |
| tctgggtcaa  | gtatcatcct  | ggcatgcagc | agctccatag | gtaatgcctt | aaggctagcc  | 26100 |
| tgaggcaagt  | tgcaaaagcc  | atcatattga | gtcatggcct | ttttttgtgt | ggggggaggg  | 26160 |
| gaatggcatc  | cccttcctgt  | ctgccaatc  | aaggaatata | gtgccctcct | aaacctgctt  | 26220 |
| tgtttttagtg | gattgttaaa  | aagaagtga  | tgaatttatg | cttcattagg | gaaagggttac | 26280 |
| agtgaatac   | tgaggagtaa  | gggttatctc | tatttaacaa | atgacataac | ttgaagggaat | 26340 |
| gaaatcataa  | ggatggaatt  | tcaggcatta | ataaaaagct | gatgagagat | actttgagac  | 26400 |
| aaaagagcct  | tcccagtgta  | accgagatca | cagcacctac | ttcacataca | caggaaacca  | 26460 |
| gtcctatctg  | tctctcccat  | agagcagtag | ctgccttggt | tttctctcct | cctccatcat  | 26520 |
| tcattctaaa  | tctccagtcc  | tccaccgcac | cttatccaaa | ccctgatacc | cttaagtcac  | 26580 |
| agatggtgaa  | tcagtcaaaa  | gtagtattaa | aaactagtgg | tacacagcta | cacctggaat  | 26640 |
| gcagtaagaa  | aaatacggat  | ttctgtacat | catcttccct | ccctgctctt | acccccattt  | 26700 |
| aagagttaca  | gggtcagaac  | ccaagagtct | gagtttttga | aagtccctaa | aaattttgga  | 26760 |
| tgatcaccta  | catttagaac  | cactgcacta | agaaggacaa | caaatatgcc | aataaattct  | 26820 |
| gttgccaagg  | aggtgattat  | gcaagctgga | accctgataa | catgaggaga | atcccacaat  | 26880 |
| agccaaatag  | tccatgtact  | agttacatta | taataaagcc | aaaagcagca | ggcctacctg  | 26940 |

seqlist.ST25.txt

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| gcatgatctt ggctcactgc aagctccgcc tccctgggtc acgccattct cctgcctcag | 29040 |
| cctcccatgt agctgggact acagggcctg ccaccgcgcc cggetaattt tttgtatttt | 29100 |
| tagtagagtc ggggtttcac tgtgttagcc aggatgggtc cgatctcctg acctcgtgat | 29160 |
| ccaccgcct cggcctccca aagtgtggg attacaggcg tgagccacca caccggccc    | 29220 |
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| taacacattt tttgtgtcat accataggca tcatatTTTT taaatttttt ttatttcata | 29520 |
| cacataggaa aatatatgtg tgtaagaaat aataaacacc tctttgtacc taccaccaa  | 29580 |
| cttaaggaac agctcattgc tattcccttt ggtgtctcgt ggatgccctt tcccagtcac | 29640 |
| atccccctcc cttcccatct gcaggactat actagtaaat tttgtatttt ttgcattatt | 29700 |
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| gcgccatggt ggtttgctgc acccatcaac tcgtcattta cactgggtat ttctccta   | 29940 |
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| acatttataa gagttttttt tcccccaagg gaattatacc tagaaattga ataactagat | 30240 |
| cacaaggcat acacatctac aacttctgct aggtaatgcc aaattgtttc caaggagcgt | 30300 |
| tagaagtgtt ctcatcaact ttactagtg ctagtctttt acatttgtgg cagtatggtg  | 30360 |
| ggtgtgaaat atttatgttt agtttttctt ggtgccattt aataattttt ataaaaata  | 30420 |
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| cagacattga gattacgact tggaataaac attggttgca aagttcctaa aaggaaaact | 30540 |
| ttttttggtt ttctggagct tttctggtac tgaataaaat aagtatgtta aattatgcat | 30600 |
| gtgtagttta gaagtcagag caataattgt gattgttgaa cagaatggca gtaaaaagtt | 30660 |
| tctaaacgat tgtactgtac aaggacact tgtgtgggt cagttttagc cttcccaact   | 30720 |
| tttatgttaa aagttgcaac aaggtttaag ggcttatgtt tgataggcca gatggtgacc | 30780 |
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seqlist.ST25.txt

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seqlist.ST25.txt

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|------------|------------|------------|-------------|-------------|-------------|-------|
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| ggatttctac | aatgtacaag | tctgtagccg | gtgcccttaa  | tatgttggtc  | tcatgtctca  | 32880 |
| tgactctctt | ctgtaaatat | gcagtttaaa | aaatacaagt  | tattctgctg  | tagaagatac  | 32940 |
| atttgcaaaa | ttgatgtatc | ccctctaagt | aaagttggct  | aaacaataag  | gacatattta  | 33000 |
| taattaatga | atttgagaag | aatgctgacg | atatgcatta  | ttctttgaag  | ttaacatttt  | 33060 |
| tcaggctcta | aataaacaaa | aagtaggtta | cttctgtctg  | gagtgtatgc  | aaggggtacc  | 33120 |
| atcttgtcct | tggttcctgg | ctgctattcc | aaggtgctat  | aaagtcagct  | aaagagagca  | 33180 |
| atcataatac | attgatagca | tcctcaatg  | tgtttctgag  | ctacttgaga  | atcttatttt  | 33240 |
| tgaataggta | gcaggaaacc | atctttgcag | ggcagcatgg  | gcaaagggat  | tggagggact  | 33300 |
| attattataa | agatccactg | aactgcttca | gtatcataat  | atcttaaaact | aaaggactgg  | 33360 |
| aaagagccag | attccaatth | aatctgctct | tctatgaatt  | cttagctggg  | ttcatthtaa  | 33420 |
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| ctcatgattg | attctththt | gctththta  | agattaaact  | tcaccgtaga  | acagthtctc  | 33660 |
| aacctctgga | ctattgacat | thttgattgg | ataattctth  | gctgtcaggg  | ctgttctgtg  | 33720 |
| tggtgcagga | tagttagcaa | catccctgac | aatcacaaat  | gttactthtct | gtctctatgg  | 33780 |
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| ggcttatttc | acttaacatg | thttcaaggt | tcatccatat  | tgtagcatgt  | aacagcactt  | 33900 |
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| cagctgtggc | cccttgacct | tggacttccc | agcctccaga  | aatgtaagaa  | atccatttht  | 34620 |
| ththththta | aaattacaca | gtctcacgta | thcagttata  | ccaacagaac  | acagactaag  | 34680 |
| acaccatcct | attgggtatg | ggtatctcat | tgtgtththt  | atttgtgtct  | cccaaatgac  | 34740 |

seqlist.ST25.txt

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| atgtctttaa | cattctttgc | ccattttaaa  | attaggttgt | ctttttattg | ttgagttgtc | 34860 |
| ggtgtgtgtg | tgtgtgtgtg | tgtgtgtgtg  | tgtgtatcta | gaatatatgt | gtatgtatat | 34920 |
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| ccatttaaaa | ggccatcttt | tcacttcttg  | atagtgtcat | ttgactcaca | agtttttaat | 35040 |
| ttttatgaag | tccaatttat | tttttaattc  | tttgtttttg | gcactgtatc | tttaaaaagt | 35100 |
| tgctgatct  | aaggtcaaac | tgattttcac  | ctatgttttc | atctaagaat | tatagtttta | 35160 |
| gctcttacat | ttaggccttt | gatccatttt  | gaattaattt | gtgtatatgg | tgtgaagtag | 35220 |
| ggctctaact | tattcttttg | tgtaatgata  | cctagtgtgc | ccagcaccat | ttgttgaaaa | 35280 |
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seqlist.ST25.txt

|  |       |
|--|-------|
| gccatttttc caacagcttg tgctcatttt gtgtctctgt gtcacatttt ggtaattctc  | 48420 |
| tcaatatatc aaactttttc atcatttttg tatctgttac gaccagtgat cagtgatctt  | 48480 |
| tgattttttc tttttttttt tttttttgag acggactttt gctctgtcac ccaggctgga  | 48540 |
| gtgcagtggg tcaatcttgg ctcacagcaa cctctgcctc ccagggtcaa gcaatcctcc  | 48600 |
| tgccctagcc tccccagtag ccgggcctac aggcgtgtgc caccacgcct ggctaatttt  | 48660 |
| tgtattttta gtagagatgg ggattcccca tgttgccag gctggtctcg aactcctgac   | 48720 |
| ctcaggatgat ccgctcacct tggcctccca aagtgtggg attaccgtgc cagcctgatg  | 48780 |
| ttactatttt aattgttttc aggcaccata aacctcacct gtataaggca ccgtacttaa  | 48840 |
| ttgataaata ttgcgcatga tctgactgct cttccaactg gccattccct gtctgtctcc  | 48900 |
| ctcttcctgg gactctcaaa tccctgagag acaataatat taaaattaag ctaattaata  | 48960 |
| accctacagt ggctctaaag tgttgaagt aaagagttgc atgtctctca ctttaaataa   | 49020 |
| aaagctagaa gtggctaaac ttagtgagga aggcacatca aaagccaaga caggccaaaa  | 49080 |
| gcaaggactc ttgtactaaa cagctaaatt gtgaatgcaa aggaaaagct cttgaaggaa  | 49140 |
| ataactagt ctactccagc aaacatgtga atgatcagaa agtgaaacag cttctctgct   | 49200 |
| gatacgaaga aagttttagt ggtctggaca gaagatcaaa ccattcaca cttccttta    | 49260 |
| agccaaagct taactctctt caattctatg aaggctgtga gaggtgagaa agctgcagaa  | 49320 |
| gaaaaattgg aagctagcag aggtcggttg atgaggttta gggaaagaag ccagcgctgt  | 49380 |
| aacataaaag tgtaagggtga agcagcaagt gctgatacag aaactgcagc aagttatgta | 49440 |
| gaagatctag ctaagattac taaataatag attttccatg tagatgaaaa agccttttgt  | 49500 |
| tggagaaga tgccatctag gactttcata gctagaaagg agtcaatgtc tggcttcaga   | 49560 |
| ggacaggctg acattcttgt taggggctaa ttaggttggg gactttaagt tgaagccagg  | 49620 |
| tctcatttac cactccaaaa atccgaagac ccttaagact tatgcttaat ctactctgct  | 49680 |
| tgtactctag aaatgaaaca acaaagcctg gatgacagca catctgttta tagtatgctt  | 49740 |
| cactgaatat tttaaggcca ctgtaaagac ctgttcaact gctcagaaaa aaatgattac  | 49800 |
| tttcaaaata ttgctgttca ttgacagtgc acctgggctc acccaagagc tctaattgaa  | 49860 |
| ttgtacaaca agatggatgt tgttctcatg cctgccaaca catcatccat ttgtagccca  | 49920 |
| tgaatcaggg agtgatttca agtttcaa atcagatatt tgtaaggcta tagctgctat    | 49980 |
| agacagtgat tgctctggtg gacctgggca aagtaaatca aaaaccttct gaaaaggatt  | 50040 |
| ggccattcta gatgctatta agaatttgtg attcgcagga ggaggtcaaa ggatcaacat  | 50100 |
| tagtagcagt ttgaaagaag ttgattccaa cagttataga tgaatttgag gggttcaaca  | 50160 |
| cttcagttaa ggaagtcact gcagatgtgg tagaaacagc aagagaacta gaattagaag  | 50220 |
| tggagcccga aaatgtgacg gaattgctgc aatctcatga gaaaacgtga atggatgagg  | 50280 |
| agttgcttct tatggacaaa tgagcaaata aatttttttc ttgagatgga atctactcct  | 50340 |

seqlist.ST25.txt

ggtgaagatt ctgtgaacct tgttgaaata acaacaaagg atttagagta ttacataaac 50400  
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 aaccacctct ctgatcagtc agcaggcatc aacactgaag caagaccctc cacaaggaaa 50640  
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 aataagttag ctaataatag agtagaaatg ttttctgtaa cagattaata ttgatcaaat 51780  
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 tcatttttgt gaataaatga agagagccct ggacacatct ttttttcctc aacaaaagag 51960  
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 ctgaaggcag tagagaacca ttatgttttt aagccaggat tgacttggtc taagctgtac 52200  
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seqlist.ST25.txt

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|-------------|------------|------------|------------|------------|------------|-------|
| tggggagaca  | gttctcgaag | agagactaca | tacgaaggca | gttatatgag | tcattactaa | 52320 |
| aggtctggca  | agaagtagta | aaagcattaa | ctggagtggg | agcagtaggg | aaggaaataa | 52380 |
| aaggatagat  | gtgggagtca | tttggaaagt | atgaggcaat | tcattgacct | tacagaatca | 52440 |
| ctggttttct  | gcttccactc | cattcacatt | gacctttcca | aggttatcag | tgacctgctt | 52500 |
| gtccttaaata | tcagtgggca | ctttccagta | acctactggt | ggcaccagcc | ctgtgctaga | 52560 |
| caccaggatc  | ctgtttgtaa | aggcatctgc | cagtggtttc | tgtgacacaa | ttctgtttct | 52620 |
| agttttcctc  | cttctacttc | tctagcctct | tggcaagttc | ttctttcaga | gtttctcaga | 52680 |
| gctttgtgct  | aggccctctt | ctcattttct | ccttctctaa | gtgatcccat | ccttttctgt | 52740 |
| tgcttcagtt  | accatttgct | cttatgcaaa | ggacagccat | atctactgta | tctccagctc | 52800 |
| agatgtatct  | ctttgctctc | tgacctatat | ttccaactat | ctaactgggt | atcttttctt | 52860 |
| ggatgagtta  | taggtctctc | aaacacaaca | tgtccagaat | aattcattga | cttattctaa | 52920 |
| ggcctgcttc  | ctctttctcc | tgtagtccct | atctcaggaa | atatatgggt | ctatcaaccc | 52980 |
| caaagcagaa  | atctggacat | aatccctaac | tacccttttc | ccctctctgt | gcacataatt | 53040 |
| tcagtcatta  | ggcctcatag | attggactaa | ataaatacct | cgcaaaccct | tctacttata | 53100 |
| ttcttaactg  | ctcctacctt | aagccaggct | accataatct | tgtagctgga | tgactgcatc | 53160 |
| atcatcttga  | ctggctccct | tgtcatcttc | aatctatatt | ctatactgca | gctagagctt | 53220 |
| tcaaacataa  | acatgtgatc | agattagtcc | cctctttaga | acaccctagg | gttctcactg | 53280 |
| tcctgagtac  | agtctaaggg | tttaccatgg | cttacagggt | cttttatgat | ttggtgagct | 53340 |
| ttttattgta  | taacctttct | aaactgcctt | tacttccctc | tttcttggct | ctgtgtcttt | 53400 |
| gcataatgct  | gttccctata | cttcacctca | cgtctaacct | tcattctcct | ttcacttctc | 53460 |
| ctcttctctc  | aaaatccagc | tgaatatcac | attgtcatgc | aggcccatc  | ttgatctccc | 53520 |
| acgtttgggt  | tagatatccc | tcttcagtac | catcaccgca | ccagggtgtg | cccctatcct | 53580 |
| agcatttgcc  | tcattgtatt | acaactactg | tgtactcgtc | tctacagctc | ctgctagtct | 53640 |
| aaaagttttg  | ggagagcaaa | ggttcatggt | tgtgtttttc | actgtggtat | accccagtgc | 53700 |
| ctagtatatg  | ataagctctc | aaaatatttg | ttagatgtat | gaagaaatga | gaaagagaac | 53760 |
| aggaagaggg  | taagtttcaa | gactaggaaa | caaggctatg | aaagctgcag | gaaagcagca | 53820 |
| ggttaaaacc  | tagaagaaga | gtttgtttta | ggaaatactg | tgttttaaac | cactataact | 53880 |
| gaagcaaaaa  | ccaaggcctt | gggtgtggat | agagtccact | atctgataac | agtggatact | 53940 |
| gatgcatggc  | agagtggag  | aggaagagag | ccagattcca | aaacagaagg | ggtaaagtct | 54000 |
| tctaagaaga  | tagattatag | taagaaggat | taggggatag | aaatatgagc | ctgttccact | 54060 |
| catagatctc  | aaacatgaaa | tgatgagtca | tcatgaagag | agtaggcaat | tgtccagtga | 54120 |
| agaaggggat  | gctaaccctt | cttaaccctg | aatctctcag | gtagaagcag | ttagagaagg | 54180 |
| aacagccatc  | atcagatagt | gttgtaagga | aaatgatatc | cttggggaaa | cctgcatttt | 54240 |

seqlist.ST25.txt

ggtaaagcaa agcaactaag aaagaatata ctaccactgt ttaacaatcg ccacaaaaag 54300  
 acagtaggat catctttgac cccctcatc ctttctcagg aacttggagg actaagaaga 54360  
 gagaaatctg tagaagaggc ttctctctct gatcctccct ccacttcagt tttaccacat 54420  
 gtaatgcaac aataattaag aatttgtgta aaatttcacc aggttggcat gcatggagag 54480  
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 tcaaattttt tgctattctg tgcttatcca cgaatcgata ggaaagcaag tgtggatttg 55020  
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 ccgaaattct tgtgtagcaa aaattaacac ttaagttagc ccttggcaat ctccagttct 55860  
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seq1ist.ST25.txt

|            |            |             |            |             |             |       |
|------------|------------|-------------|------------|-------------|-------------|-------|
| tataaaaatg | ttacagacta | tattcttccc  | ttttgtaaca | gatgagaaga  | ttttgaaatt  | 56220 |
| tagtctctac | tttttagttt | ggtaagacaa  | tttgataaaa | ctgcaataat  | tgcaaaagaa  | 56280 |
| ttctgaatat | ttgaacattt | gacattttct  | atgtcaaata | tacattttct  | gtactatata  | 56340 |
| aacattctag | aaaagagaga | caggcagggg  | ggaaagtgtt | cattaaaaag  | agcttcaccc  | 56400 |
| tctctgaaaa | gggatttctt | ttacagtgtt  | gtgtactaaa | gcctgtgttg  | taaatcagaa  | 56460 |
| agcactgagc | acacatgttg | ctgcttttgt  | agcatcagaa | gtcgattttc  | attagcctta  | 56520 |
| taccattcac | tatttctgcc | aagcaatctt  | aaattataaa | agaatcttat  | ttgattttgt  | 56580 |
| gattctcttg | ttttctgtct | ataaagaaaa  | tatcctaaat | tgaacaatgg  | catgctacgt  | 56640 |
| tttttagttt | taagacagct | aatgtgtaaa  | aagacattta | aagtatagtt  | gtgttaagtt  | 56700 |
| tttgaagttt | acagtgtgtt | caatttttgt  | gctatacttt | gttaacatat  | tttaggaata  | 56760 |
| tttcatttta | gtcacaaact | ggatataaac  | attatttttg | tggcgatctc  | cttgtaatca  | 56820 |
| cgacgtcaac | caaatttggg | aaattttgat  | ttgttagatt | tataaatttt  | acagtaacac  | 56880 |
| aaaagtctaa | tttcttatat | attttcaagg  | cccctatacc | tttgtcaaaa  | taaagtatca  | 56940 |
| atgaaaaatg | aaaaaatcat | aaactatgtt  | caggccaaac | tgatactgac  | tttgttaaaa  | 57000 |
| ggctagatag | aaatctgttt | tcctcttctg  | ttacatctcc | tcttctggag  | accactctgt  | 57060 |
| gtggactgaa | ggtttgagat | cctaggacct  | aggctagaac | agattaggag  | attgtgctgt  | 57120 |
| atgttaagtg | gcagatacca | tgggaattcta | agcctgttac | gaaggaggag  | aagaagaggc  | 57180 |
| acaatgacct | tgacacagcc | cctgggttga  | ccacagcaga | tatctcactt  | gagcaagtag  | 57240 |
| atatcatctc | aattgcttgc | tgattatctc  | taacttgtca | gtaacttact  | ttgataacct  | 57300 |
| agatttagga | gtctgacagc | atgcagtgtg  | tgcctcataa | taatctgctg  | tttatgaaag  | 57360 |
| tcataacatt | gtatgtttag | cataatgggt  | aagagcctgc | catctggaat  | ggctctactta | 57420 |
| tttgggatcc | acatacagta | agctctcact  | taacatcatc | agtaggttct  | tggaaactgt  | 57480 |
| gaccttaagc | aaaacaacct | ctaataaagc  | caattttacc | acaggctaata | tgatataaac  | 57540 |
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| agacccaaaa | cacttataat | attaaccact  | gaaataaatg | tgagctatat  | atatacattt  | 57660 |
| aagaataata | aaaacaaaaa | ataattattt  | acccaatttt | tgggtgaacca | gtgagtgata  | 57720 |
| gtgatcatag | tgatggttga | tgaaatcaag  | gaataaatat | ttgcaaagtg  | aaaattgtaa  | 57780 |
| gaagcaccct | ctgtcaccac | atagctcaga  | aataataatt | agggcaggct  | tgctgagcat  | 57840 |
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| tcattttata | ttaatttgta | ggccaggcac  | agtggctcac | gtctgtaatc  | ccggcacttt  | 57960 |
| gggaggccaa | ggcaggcggt | tcactggagg  | tcaggagttc | aacaccagcc  | tgaccaacat  | 58020 |
| ggggaatccc | catctctact | aaaaatacaa  | aaattagcca | ggtgtggtgg  | tacacacctg  | 58080 |
| taatcccagc | tatttgggag | gctgaggcag  | gagaattgct | tgaacctggg  | aggtggaggt  | 58140 |

## seqlist.ST25.txt

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seq1ist.ST25.txt

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seqlist.ST25.txt

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| agatcctact aagccttttg cagatggaaa tttcctttaa attggtttgt tttcctttaa  | 62220 |
| cattccatta tcctattgtt cattctttgg agctgtgatt tgtttaatat atttcaggct  | 62280 |
| tcttaataaa tcaagtcattg taagtattta tttggatcat ttcgaaacta caacagctta | 62340 |
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| attggctgag ctaccttcat tattcatatt taattcctgg tactgagggt gggaggagg   | 62460 |
| agaggagcag aaaagataca actattgggt actgggccta atatctgggt gatgaaataa  | 62520 |
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| ttattttcca attgtttgtc gcataatag aatgttttaa aaatattgtg tcctgtgacc   | 63420 |
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| atatcctcag aaataagaaa aataatgcat ttatcaaatt aaaggatttt gaaaaaggga  | 63900 |
| acattcagag aataaaaact aactcttgaa agttaaaagg atgataacat aaatgaaaag  | 63960 |

seq1ist.ST25.txt

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seqlist.ST25.txt

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| cttgtctttg  | actttactgg | ataataccaa  | actgtcttcc | aaaatgatta | catccttaaa | 66060 |
| ctcaggacac  | atcttattgt | caaatgttta  | atctttgtca | gtctgatggg | tatgtaagtt | 66120 |
| atctttattgt | cgttttaatt | tgcatttccc  | tgattactaa | ttaagctgag | taacttttca | 66180 |
| tatgttttatt | ggccatttgg | agttcctgta  | ttgtaaagta | taagtttttt | tgtccatttt | 66240 |
| tctagttttc  | tgtcctttta | gttgaaatcc  | aaatttgcct | aaatctgtta | ttctctgagc | 66300 |
| acaagtaact  | tgggatgctt | tccttttagat | ttagccta   | ttcttatcat | tttgtcagct | 66360 |
| tgatgggtgct | tttaaggaga | tatatatgtg  | tgtgtgcgca | cacatgtgcg | tgtgtgtata | 66420 |
| tatatatatg  | tatatgtatg | tatgtatttt  | ttgagacagg | gtctcactct | gtcaccaggg | 66480 |
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| cagtttttga  | gcctttcaga | atcttttttc  | ataataatta | ggttgcttct | tagctttccc | 66960 |
| cactggtgac  | ttaacagatc | ttaggaagcc  | aacaatcctt | gtccatctgc | tttctgtctt | 67020 |
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| atatactggg  | tttgagaggg | agctgaaata  | aaagcatgtg | ttaaatatac | catctttaac | 67140 |
| cagaactaca  | tttgactggg | cattttatct  | tcaagctcac | atacacttca | aacagagata | 67200 |
| tggctaaagg  | aattatcatg | tgaacaacag  | ccagggtctt | gaacatcaca | gattatatca | 67260 |
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| tggactaagt  | gtttaagtac | ttaacatcca  | aaacattctt | actaatcaag | agaagacaaa | 67380 |
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| taaggagagg  | cagtttaagg | atccatgtga  | taaaccctaa | agttgtccat | cggctttcca | 67560 |
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| aaatacttta  | caactactaa | agaatcatgt  | aaaatatcta | ttgacatagg | agttttatca | 67740 |
| aaatgtgaag  | tatacagatg | aatagtacca  | cacataaaaa | gcaaggtgca | aattagccat | 67800 |
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seqlist.ST25.txt

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| ttagatgtaa | aaacatgagt  | tgggctttat  | ggttacagag | agttttcctc  | agtgtgggga | 68160 |
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| gctagtaggg | agagaatcaa  | attgcctcct  | attcaaacca | agaccacaaa  | atagcgtcaa | 68340 |
| ccagtcattt | cagctactcc  | ctgcagtgtc  | aagaagggtg | gaaccctca   | tgttctctat | 68400 |
| tgcataccct | tgtctaattc  | agtgtttcct  | cttcttttca | ggttttggt   | ttatgctaca | 68460 |
| tttcagaaat | cataataacc  | ttttctggta  | ttattttatt | ctttttcgca  | ctgtgagaaa | 68520 |
| aattaaactt | tcaagtggat  | gcttcttata  | aactatttat | acccttttgc  | tcccttttgg | 68580 |
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seqlist.ST25.txt

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 accctcaagt agggccaggt gtctgtcctt cccttctttg tgtccctgtg tactcaatgt 71700  
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seqlist.ST25.txt

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seqlist.ST25.txt

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| ttaatctatc  | ttaatctgtg  | atacagtttg | aaaaccaagc  | ttttactatt | ggcatgtgca  | 73860 |
| aaaaaataaa  | gcagcagtag  | acttggaatc | ttgaatgcaa  | atttagattt | tgctctctaa  | 73920 |
| taaatgtata  | atatagtgtt  | ctgggaccaa | ttctctaaca  | tttctgagtc | ctagtttctg  | 73980 |
| catctgtcaa  | atgggattag  | agatacctac | tttcaggatg  | tgatatgggt | tggctctgtg  | 74040 |
| tccccacca   | aatcttatct  | tgaattgtaa | tccccatata  | tgagggagg  | gacctgggtg  | 74100 |
| gaggtgtttg  | gatcatggaa  | gtgatttcct | ccatgctgtt  | ctcgtgatag | tgtgggagat  | 74160 |
| cgcaaaacat  | ctgatgggtt  | aaatatggca | gtttccccctg | tgctttctct | ctctcctgcc  | 74220 |
| accatgtaag  | actttccttg  | cttcctcttt | gccttctgcc  | atgattgtat | gtttcttgag  | 74280 |
| gcctccccag  | ctatgcagaa  | ctatgagtaa | attaaacctc  | ccttataaat | tacctagtct  | 74340 |
| cagatattct  | ttatagtagt  | gtaaaaactg | actaatacag  | agaattggta | ctggcagggg  | 74400 |
| tgggtactgc  | tataaagata  | atctgaaaat | gcggaagtga  | ctttggaact | gggtaacagg  | 74460 |
| cagtgggttag | aacagtttgg  | agggtcaga  | agaaaactgg  | aagatatagg | aaagtgttga  | 74520 |
| acgtcctaga  | gacttgtttt  | gaatactttt | gaccaaaatg  | ctgatagtga | cgtggacaat  | 74580 |
| gaagtcagg   | ctgaaatggt  | cccagagatg | aggaacttat  | tgggaactgg | agcaaagggt  | 74640 |
| atttttgcta  | tgcttttagca | aaaagactgg | cagcatttta  | cccctgccct | agagaactga  | 74700 |
| tgaactttga  | gatgatttag  | ggtatttggc | agaagaaaat  | ttctaagcag | caaagcatcc  | 74760 |
| tagtggtgac  | ttggctgatt  | ctgaaagcgt | tcagtcatgt  | gcattcacga | agatatggtc  | 74820 |
| tgaatttga   | acttaggttt  | agaagtgaag | cagaacataa  | aggtttggaa | aatttgcagc  | 74880 |
| ctgaccatgt  | agtagaaaag  | aaaaccccat | tttctgggga  | ggaattcaag | ccagctgcag  | 74940 |
| aaatctgaat  | aagtaacaag  | gagtaataag | taataataag  | taaaaagtaa | taagtaataa  | 75000 |
| gtaacaagga  | gccaaatgtt  | aataaccaag | acaatggaga  | aaatgtctcc | agggcatggc  | 75060 |
| agagatcttc  | ggggcagccc  | ctcccatcac | aggcctgaga  | actaggaggg | aaaaatgggt  | 75120 |
| tcctgctcag  | ggccttgctg  | ctctgtacag | cctcacgaca  | tggtgccctg | catccctgat  | 75180 |
| gctccagctc  | cagctgtggc  | tgtaaggggc | caagttacag  | ctcgcaccat | tgcttcagag  | 75240 |
| ggtgcaagcc  | ccaagctttg  | gcagctttca | cgtggtgttg  | ggcctgcagg | tgcgcagaag  | 75300 |
| acaagagttg  | aggtttggga  | acctgtgcct | atatttaaga  | ggatgtatag | aaacgcctgg  | 75360 |
| atgtccaggc  | agaagtctgc  | catggaggca | gagccttcat  | ggagaacctc | tgctagggca  | 75420 |
| atgcggaagg  | gaaatatggg  | gttggatccc | tcatacagag  | tccccactgg | ggcactacct  | 75480 |
| agtggagctg  | tgagaagagg  | gcctctgtcc | tccaggcccc  | agaaaggtag | attcaccgac  | 75540 |
| agtttgcagt  | atacgtctgg  | aaaagccaca | gaatgccagc  | ctgtgaaagc | cacaggggta  | 75600 |
| ccctgctgag  | ccacaggggc  | ggagctgccc | aagggtatga  | aagcccaccc | cttacttcag  | 75660 |

seqlist.ST25.txt

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| tgcccagctg ggtttcagat ttcattggggc ctgtggccct tggtttgacc agtttctccc | 75780 |
| atttgaaca ggaacattta cccaatgcct gttccctcat tgtatcttgg aagtaactaa   | 75840 |
| cttgcttttg attttatagg ctcatcgtg gaagggactt gccatgtctc agatgagact   | 75900 |
| ttggtcttgg acttttgagt taatgctgta ataagacttt gggggactgt tgtgaaggca  | 75960 |
| taattggttt taaaatgtaa aaagacatgg gatttgagag ggagcaagtg caaaataata  | 76020 |
| tggtttggct ctgtgtcccc acccaaactc aatcttgaat tgtaaccgc atgttttggg   | 76080 |
| ggagggacct ggtgggaggc agttggatca tgggggggtt tttccatgc tgttcttgg    | 76140 |
| atagggagtt ctgaggagag ttgatgggtt aaatgtggca gtttcccttg tgctctttct  | 76200 |
| ctctcctgct gccaggtgag acgtgtcttg ctccccctgc ccctccacc atgatcataa   | 76260 |
| gtttcctgag gcctccccag ccatgcagaa ctgtgagtca attaaacctc ctttccgtat  | 76320 |
| aaattacca gtctcagata gtatctttat agcagtgtca gaatggacta atacaggata   | 76380 |
| gtaatgaaga ttacagaata ttagatgaa gaagtgttaa gtaaatagca gctattatta   | 76440 |
| tgtagtcaaa ttgaatgtat acattgtggt acttcagtgt cttttaaatt gaataactag  | 76500 |
| aaatttggtg gctttctcaa tctgtcaca tcagatgaca tgtaattta tgcctatact    | 76560 |
| tttttctagt taatagatat aaatctattc actcaacttc tattgacaga actggtagtg  | 76620 |
| tggcaagaca tctcatttct agttaaggct gtataatatt aagttcattt tacttaaatt  | 76680 |
| aactatgggt tgggaaatgc ttttcatgtc atcatgtatg cccaatttga tacttttagtg | 76740 |
| ggacagtata tttcagaaaa aaacaaatgc tccccaaaa attccagggt tgaatacatt   | 76800 |
| agtcagacat ataacaatgt acttcagagt tctctaaagg gcaaaaatcg tggatgaat   | 76860 |
| atacaaaaca ctctatttta tacttttgta tttttgaaat gtagtcttca tgttaattta  | 76920 |
| gcatttcaat gaccagcatg acattatctt aataatttgg aatgccaaata tgttcattta | 76980 |
| agacttaata tagtaagtat ctaaagaaaa aaatggaagt gactgaatgc ttttgtatct  | 77040 |
| cttaattata atttgtgtc cattgtgata tgaaggatag aaggggcagg atagatagaa   | 77100 |
| aacagaaatt aactttgatg ttaacctta ccttaagact gtctgttaag tgaccacat    | 77160 |
| aatcttaaaa aactctgtca agcttaatgg atgctactct gcaggcccct gccaggcaac  | 77220 |
| agtcacaagg ttatgagggt catagatttt ggaattaggc agagctgaat tcagatccag  | 77280 |
| gtgttgccct ataatgcgac tttgggcaaa taaaaggccc aatttttgta ttcttatctg  | 77340 |
| taaaatggac tcagtaaaaa ttatttgaga taatttatgt gtgtactgta cctaggcatg  | 77400 |
| cagcttgaca cacagaatta caagtcagta gtttccagta tgattattat tgtgaaagag  | 77460 |
| atattttggt tcacctactg aaaacttttt tcagtcttaa attttttatc taactggctg  | 77520 |
| tattgcagat gtctgtcata taacttttat ataattttta aaactatttc tttcctcctt  | 77580 |
| gatcttctag gggtaagggt accaatgttt tcattattta ctaaataatag cagccccac  | 77640 |

seqlist.ST25.txt

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| agataatccc | aaatcctata  | tgtatattgt  | ttttcctata   | catacatacc  | tatgggtaat  | 77760 |
| gtttaaccta | ctaattagga  | agagtaaaag  | agtaatagta   | actaataata  | aaataaaaca  | 77820 |
| attgtaacaa | tattccagca  | tcaactattct | tgtgcttttag  | ggccaccatt  | aagtaaaata  | 77880 |
| agggttactt | gaacacaagc  | actgtgatac  | tgtggcagtc   | caactggtaa  | cagagatagt  | 77940 |
| gatgcggttt | ggctgtgtcc  | tcaccagaat  | ctcaacgtga   | attgtatctc  | ccagaattcc  | 78000 |
| tatgtgttgt | gggagggacc  | cagggggagc  | taattgaatc   | acagggctctg | gtctttccct  | 78060 |
| tgctattctc | gtgatagtta  | ataagtctca  | catgatctga   | tgggtttatc  | aggggtttcc  | 78120 |
| ccttttgctc | cttctcatt   | tttcttttgc  | caccaccatg   | taagaagtac  | cttttgctc   | 78180 |
| ccgccatgat | tctgaggcct  | ccccagccct  | gtggaactct   | aagtccaatt  | aaacctcttt  | 78240 |
| ttgttcccag | ttttgggtgt  | gtctttatca  | caagcatgaa   | aatggactaa  | tacagtaa    | 78300 |
| tggtaccagt | agagtgggtg  | ttgctgaaaa  | gatacccaaa   | aatgtggaag  | cgactttgga  | 78360 |
| actttggagg | actcagaaga  | agacgggaaa  | atgtgggaaa   | gttaggaacc  | tcctagagac  | 78420 |
| atgttgaatg | gctttgacca  | acatgctgat  | agtgatatga   | acaataagat  | ccaggctgag  | 78480 |
| gtggtctcag | atggatatta  | ggaacttttt  | gggaactgga   | gcaaaggtta  | ctatgttatg  | 78540 |
| ttttagcaaa | aagactggca  | gcattttgcc  | tctgccctag   | agatttgtgg  | aactttgaac  | 78600 |
| ttgagagaga | tgatttaggg  | tatctggttg  | aagaaatttc   | taagcagcaa  | agcactcaaa  | 78660 |
| aggtgacttc | ggtgctgtta  | aaagcattct  | gttttaaaag   | ggaaacagca  | taaaacttca  | 78720 |
| gaaaatttgc | agcctgacaa  | tgcagttgaa  | aagagaaacc   | cattttttga  | gaagaaatta  | 78780 |
| aagctggctg | cagatatattg | cataagtagc  | aaggagccta   | atgttaatcc  | ccaagaccat  | 78840 |
| ggggaaaatg | tctccatggc  | catgtcagag  | accttcacag   | cagcccttcc  | catcacagge  | 78900 |
| ccagagaccc | aggaggaaaa  | agtggtttcg  | tgggccaggc   | ccacggtcct  | catgctatgt  | 78960 |
| gtaggctagg | gactttgtgc  | cctgtgtccc  | agctgctcca   | gctgtggctg  | aaaggagcca  | 79020 |
| atatagagct | caggctgtga  | cttcagaggg  | tggaggcccc   | aagccttggc  | agcttcacaa  | 79080 |
| tggtgctgag | cctgtgggta  | cacagaagtc  | aagaattgag   | gtttgggaac  | ctctgcctag  | 79140 |
| attttagaag | acgtatggaa  | acacctagat  | gcccaggcag   | aagtattact  | gcagggcagg  | 79200 |
| gctgtcatgg | agaacctttg  | ctagggcagt  | gcagaaggga   | aatgtgggat  | tggagccctc  | 79260 |
| acacagaatc | cctactgggg  | cactgcccag  | tggagctgtg   | ggaagagagc  | cgatcatcctc | 79320 |
| cagaccccag | aatggtagat  | ccaccaacaa  | cttgacccat   | gtacctggaa  | aagccacaga  | 79380 |
| cactcaatgc | cagcctgtga  | aagcagccgg  | gaggtaggct   | gcaaagtcac  | aggggaggag  | 79440 |
| ctgcccaga  | ccatgggaat  | ccatcttttg  | catcagcatg   | acctggatat  | gagacctgga  | 79500 |
| gtcaaaggag | atcatttttg  | ggctttaaaa  | tttgactaac   | tactggatt   | tcagacttgc  | 79560 |

seqlist.ST25.txt

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| aagtaccttt cacctcctgc catgattctg aggcctcccc agccatgtgg aactgtaagt  | 80160 |
| ccaattaaac ctctttttct tcccagtttt aggtatatct ttatcagcag tgtgaaaaca  | 80220 |
| actaatacag atggctagta agggactaac cggcagggag cgtctccagt gtggatatgc  | 80280 |
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| agattattcc tttaaattgt ttcagtggat atgtagggac ctgagtgtga agtgagagca  | 80520 |
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| ctagtactt agatcacttt aggcaactca acttttctaa atcttgtttc ttcattctgta  | 81240 |
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seq1ist.ST25.txt

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atctattaat gtataggttt tgttgctgta accctctccc caagaggagt gaatataaat 83040  
gatgcagagt ttggatgaac tatcttaata agaacctaaa gttgaaacca atgcaaacct 83100  
ctctcaataa atgcaaagca aagagaataa tcagtctttc tttggcttgt taaataagat 83160  
aaaatgtgtt ctgctaaaac catttaacag aaatattgtg aaagggttcc cctaaagcat 83220  
ttttctattt gatttgaaaa ctattccata gcttattatc aaacaaatca gtaattcttt 83280  
agctaagtca gagataaatg ggcagtcaga aaatataatc acctggtgtg tgcagctgag 83340  
tatttacatt ttctctaagt aacaaagata agaaaagtgc aggtgacttt aatgtgtaaa 83400  
aactaccttt tagtgctagc gctagaggga aaaagaaatt actggctcaa gccaatcctg 83460

seq1ist.ST25.txt

|             |             |             |             |             |            |       |
|-------------|-------------|-------------|-------------|-------------|------------|-------|
| tacttgataa  | ctaagccgta  | tagtccatgg  | cttggccttca | gttctgtttt  | gaatctcttt | 83520 |
| ttggacttgt  | cttgaatgga  | ctgttttaggg | ctgcttcagt  | agtgacgttg  | ttgcattttt | 83580 |
| aagcatagtt  | taggttttaa  | aatgtttctg  | gtcccttttt  | ttttttcttt  | tccactttat | 83640 |
| gttgcttaaa  | gctttatggc  | cagggtttct  | catcctcagc  | attattgaca  | tttgaagctg | 83700 |
| gatacttctt  | tgtggtaggg  | gctgtcctgt  | gccttgtagg  | ctgggttagca | gcacccctcg | 83760 |
| cctcttctca  | cttagatgcc  | aatagcattt  | ccccaccgt   | gataaccaa   | agtgttttca | 83820 |
| gacactgcc   | aatgtctcct  | agagagcaa   | attgctctct  | gttgagaact  | actgtgttac | 83880 |
| ggtgtttgga  | caaaaactga  | caagccaatg  | ggaatattct  | attggtagt   | gtaaaaaatt | 83940 |
| aatccagtta  | tagcagctgt  | atttctggaa  | ttttttcca   | tattaacact  | tgctttctga | 84000 |
| ggtgataata  | tctttgtttt  | ttttctcca   | aatagatttc  | ttgcattaca  | ctgaaaaatt | 84060 |
| gctgattaat  | tcacttaaat  | tgaagactaa  | gccaatcatg  | tcatttgggt  | aatagtttac | 84120 |
| caactctgcc  | cctttctctg  | tcagggaagc  | ctctaattta  | gtaagcgata  | ctgtatcctt | 84180 |
| ttgtcaggta  | cattaccatt  | cctatttagca | atagggcaat  | tgagattgag  | aaagattaaa | 84240 |
| aggtcaccaa  | gctattacat  | tgtagaatta  | ggttatgaat  | tgtagcctat  | ctggtttaga | 84300 |
| atctttacct  | tactagtctc  | cataacaaca  | attcttccag  | tgtggtccat  | ggggccctgg | 84360 |
| gagtctcccc  | ttaaagggca  | gactattttc  | acagtaacac  | gtactttatt  | tgccatttca | 84420 |
| ttatgtcagc  | atttgcaata  | atggtacaaa  | agcaaagatg  | agtaaaactg  | ttggcatctt | 84480 |
| agtatacagt  | agttactgta  | ttcactgtca  | tgcaacttaa  | atctttgaag  | aagcaaaaaa | 84540 |
| attattaatt  | acattaaatt  | tcaaccctta  | aatacatgtg  | gtctttctca  | tgtcagtgtg | 84600 |
| acaaaatgag  | aagggtgcata | atccacttat  | atcgcatata  | gcatttgata  | gttgtctcaa | 84660 |
| agaaaagtgt  | ataagattaa  | actgtgagtt  | aacctacttt  | ttttcatgga  | gtaccatgag | 84720 |
| agataaaactc | tggttttctg  | ccttggttat  | ttggcgatgt  | tttcccaaaa  | atgactgaag | 84780 |
| taaacttagc  | actttaagga  | aaacaactta  | aagtatttgt  | tgccaattga  | taaaatatag | 84840 |
| gtttcaagca  | aaaatcagaa  | tttttgaa    | cttgtatctg  | ccactgtgag  | cttgacaaat | 84900 |
| gtgactcttt  | tatattacat  | aatgaactat  | gtcaacattt  | gaaagatctg  | cataactcag | 84960 |
| tgaaccagta  | ttttccagat  | gactaatgca  | tgataatata  | aatcatgca   | tgggtaaaag | 85020 |
| atacattcaa  | agtgaagat   | agactgacat  | atttcaatgt  | aacaatcaaa  | agttcattga | 85080 |
| taacagtttt  | ggattccaca  | ttgcaatact  | aaaaccttta  | aaaaacgaaa  | ttgtccaatt | 85140 |
| ttggtgtagt  | aatcagaaaa  | ggcaatctat  | aattacctga  | acttaagttt  | ctggaggacc | 85200 |
| attaaccttc  | tacaggctca  | tggggaagac  | tgtagcactt  | ctctttccct  | aagatcctcc | 85260 |
| agaaaaggaag | aaggtaatcc  | ttgggggtag  | ggtagagacc  | tattgtgtga  | tgatcaccaa | 85320 |
| gtatgtaaca  | atgctttata  | taactcta    | atatataatc  | cacacaaacc  | ccctaaaatg | 85380 |
| gcactaataa  | gggaatggac  | tcaaagaagt  | taagtcagct  | agccactgtc  | acagctatta | 85440 |

seqlist.ST25.txt

gagcactgga actaggatth gaaccagat ttgtctgtat gtaaagctga ttctcttcgt 85500  
aatagtactg agacacaaga ggcggctaca aaatattctg gtactccatc ctagaccaga 85560  
gtttcaaggt tcgttatcat ttgtagcatg atactggatc ctcacagtgc ttgcctttca 85620  
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acattctcag aatgtttggc acagctgtga gtgaacacac attgagcaat caataactat 86040  
tacagataat gatgccctta agaccaggat attttagctt tcccattcaa agggggtgaa 86100  
atatgcactc ttactatggt atacttttgg ttcttctctgc catgtatcct taataaaaga 86160  
tgtcaattcc atatggtttt ctcttgagtt ctaaccattt tgttgtacc tagccctttt 86220  
aacaatatca aacttgcaac tgaataccat ttagcattca tccatttttt ccaatggtgt 86280  
tcattatagg ctatcttact cctcctatth gtatgacaaa aattggcttt tttcaccgat 86340  
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aagaaaaagg aacatgtatt gagtgctgc tagaagcagg aacttgtagt agattttcta 86700  
tgtgttacct tattttcaca acacacacac aggtgatatc ctcccagtt tactgatgag 86760  
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cagctgggat ctaaaatatg tcagcttcac cgtagatagg ctccctgatg aaccacctgc 86880  
cacggccgt atgaccgcat ccaggggtga tgatgtcatt ttcacagggt tattgagagc 86940  
taaaactacg aagtactaca aactattatt taaaatataa atacatacta tatatgcata 87000  
tgtgtgtata tataattaat ggggtaaaca ttacagaata ctgtcctaac ctttaaaca 87060  
tgcactcgtt ttctgtaaac taatatacaa acaactgttt ggtccctaaa aatagatgtc 87120  
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ttttgcttcc ccaacacatt gtgcaccat tctgttcc aggaccttcc tacttctctg 87240  
gaaaactctg gcccagca gtcctctac attagtcaca agtttccatt aatcaggggt 87300  
ggcctgtgcc ggacctacag cagagtcatt tcaggttatt ctgttacagg ctttcgacgt 87360



seq1ist.ST25.txt

|            |            |             |            |             |             |       |
|------------|------------|-------------|------------|-------------|-------------|-------|
| gtagtcagtc | cactcgccca | aatctagcag  | ggaatgaatg | ccttgtaata  | cggaagcatc  | 87420 |
| tacaaattct | tcttaacagt | gttcagagaa  | caatgtgaaa | ccctggggcc  | ttttcccaga  | 87480 |
| attaggggtg | tggaatgct  | gtcctattga  | ctaagcctgt | taggtaagca  | ggcagttggc  | 87540 |
| aagattcagg | aagcttcatt | tgaagataga  | atctagggcg | atcgtttgga  | tttactggct  | 87600 |
| taattactta | aggtaacatt | tataaaagaa  | attgtcattc | cattattatt  | accttttaac  | 87660 |
| ttttattcct | aaacggaaca | ttagcaacaa  | actacattac | ttgataaatg  | taattttctaa | 87720 |
| ccagattgat | aactagaaaa | aaattttaag  | ttactttgct | ctgtgaatta  | gtttaaacat  | 87780 |
| atgtgtaatt | gagacttact | actgttattg  | gctgaaataa | ataaaagcaa  | gagataataa  | 87840 |
| agaataacag | agacaacgaa | cacccaattt  | aagtttattt | ctaagttcca  | tcttttttag  | 87900 |
| agaaaaggca | aattaagaaa | agtttagaga  | gaggtactag | tatatttatg  | aacttgata   | 87960 |
| gatgataagc | aaaacggact | ttaatatgta  | gaattccaga | atcaacaggt  | tgccagcatc  | 88020 |
| catgtttttg | aagatttgct | taagaacaca  | acccaaaatg | gaatgggcag  | tctctaatta  | 88080 |
| caagcagaag | gctacaaaat | catttttagct | gcataataca | gttttggttc  | taaagtcagc  | 88140 |
| acgtaagagg | aaaattcctt | aggaaaatac  | aacattgaaa | accattgtgt  | catgtaatat  | 88200 |
| gaaatgcaat | aattaatttt | tctccagta   | atagaaagat | cactgtttca  | ttggtttata  | 88260 |
| aaaatatatc | tttatcatta | aatgtggcaa  | aatgttaaga | cttgggtgaat | attggtgaaa  | 88320 |
| agtatatatc | cattgtacaa | ttctttccaa  | ttttttttga | gattgaaaat  | ttttaaaaca  | 88380 |
| acaaattatc | ttttaaacag | ctaataatca  | ctagacctgc | actctttgtg  | gtgagactat  | 88440 |
| gaaaaatggt | agagacctag | taagagaagc  | agattcacat | ttctgtcttc  | ttcttcaagc  | 88500 |
| caaacagtca | tagagtggag | tgggcagaat  | ggaactcact | tttgaaagcc  | tagtgctttg  | 88560 |
| tccaatctta | ctgcaagcca | gacaggaagg  | ttatagaaaa | tgtttctgga  | tcagtcttct  | 88620 |
| ctgagtcata | tgaaattgtg | gtttcagcca  | agatgacatt | aggaattaga  | gacatgggac  | 88680 |
| aaaaacttta | agattgtaaa | aaaattttga  | ctctagtagg | aaacatgggt  | agaattgtaa  | 88740 |
| tgacacttga | ttgaatttta | aaagatgcct  | gtataagatc | ttaaaattag  | gaaaaaaatt  | 88800 |
| atggcctaag | caattaaagg | cataggaggc  | atcttttttg | gatgatggaa  | atatcctctc  | 88860 |
| tcttgattgt | gatagtagtt | acatgaatat  | tcatttaaca | aaaaccataa  | attatagact  | 88920 |
| tagaaaacag | taaatgttac | tgtatgtgac  | accttaataa | acgtgattat  | aaaaataaat  | 88980 |
| cctaagcatc | taaaaaaaaa | aaaaaaaaaga | agaagaagtg | aaccagaacc  | acaccattct  | 89040 |
| attttggaga | cacttcaaaa | gaaatgacct  | cattcttaat | tttgtttaaa  | gaagaatata  | 89100 |
| acatgatttg | aatatattta | gctaggatat  | tttagtgctt | gctagcactt  | gaagccagag  | 89160 |
| ttcactgtga | gcattctgac | tatgaagtga  | gaagctaaga | gaactgtatt  | ttgatattcc  | 89220 |
| tttgacagtt | aatcataac  | actgttcttc  | cccttcttta | gccccagcat  | gagaccagat  | 89280 |
| gtaagctctc | ctccatccag | ctcctcaaca  | gcaacaacag | gaccacctcc  | caaactctgc  | 89340 |

seqlist.ST25.txt

|            |             |             |             |             |             |       |
|------------|-------------|-------------|-------------|-------------|-------------|-------|
| ctggtgtgct | ctgatgaagc  | ttcaggatgt  | cattatggag  | tcttaacttg  | tggaagctgt  | 89400 |
| aaagttttct | tcaaaagagc  | agtggaaggt  | agtgtgtggt  | ttgaagagtt  | tatttttcct  | 89460 |
| ctacttggtt | ttcattttctc | aggggtggatt | ttgaaatttc  | cattatatgc  | aaagcccatg  | 89520 |
| aaaggctaaa | tatcagttaa  | gaggggagag  | gaggggtggct | cctaggtcct  | ctaattgggca | 89580 |
| ggaaagtatt | taaaacaaca  | atacaaaaag  | atctagaata  | aaatagaaaa  | gtacaagttg  | 89640 |
| atgtctggga | gtttggtcag  | ggagcataag  | gtaacactat  | aagaaagtgc  | tatcatatga  | 89700 |
| aatgatggtg | ttaagtttgg  | gcataacata  | atgttcattg  | tattagaaac  | atgggcttta  | 89760 |
| acttccataa | gctaataagg  | ttcaaagtca  | ccaactttac  | tggcctggca  | aaaatgagtc  | 89820 |
| acagtgagaa | ctgtgacagg  | aaaaaaaaa   | gatattcatt  | tcattttctta | ttcattttttt | 89880 |
| ttttctatta | agccagggca  | ctgtgctaag  | tggtataaat  | accaataaga  | cctgatacctt | 89940 |
| accctctggg | aagtcacact  | ccactgaagt  | gaaagatgag  | ttaacaatga  | caaggtacag  | 90000 |
| agattataat | atagatgagg  | gagagagaaa  | ctcggcctga  | ggaggtcagg  | aaaggatattt | 90060 |
| tagagaaact | gatttccacta | tataaatgtt  | gtattaacac  | aaatcttact  | ttgttatgga  | 90120 |
| ttcagactgc | tgacagggca  | acagcattat  | ctccctaaag  | aatgagaaat  | tcattccata  | 90180 |
| gcaaatttat | tagaagagag  | tctaaaatgt  | cctaatacta  | ccagtgactc  | ctctaggaaa  | 90240 |
| aaaattgtca | tataatttag  | ttattttctaa | agcagtttga  | aagtagcttg  | gcctaaagct  | 90300 |
| ctgattatat | taattttttta | aagaaacaat  | tatttcattca | ctgtatgagg  | attattatta  | 90360 |
| tttgtctcat | gttgtgtttg  | catatccatg  | agagttagat  | gagtcatttt  | cttttgtttt  | 90420 |
| actttttaat | acattagcaa  | attataaaat  | tactcatatt  | acaccacaaa  | gattacaagg  | 90480 |
| atggcagctt | tggccagtgt  | agtagtccca  | cctattgatt  | agagtcaaaa  | gtaaagccca  | 90540 |
| gccctgcttt | gtgcattgct  | cctaataaag  | tggtatgttac | ttaacacata  | cgcagaagac  | 90600 |
| agaagcgtct | tcgtgtcctc  | actttactcc  | tcactttctt  | aactgcttaa  | gtattttccac | 90660 |
| gatataaatg | cagtataaat  | aataatacgg  | acagtcacctg | acttaacgat  | ttttcaactt  | 90720 |
| ttatgatggt | gggaaagtga  | tacgcattca  | gtatggctcc  | tcgacttaca  | atgggggttg  | 90780 |
| ctccagataa | accatttgtg  | aattgaaaat  | atcttacact  | tagcactcca  | ttcttaatac  | 90840 |
| ctgctagaat | tatagattat  | ccctcaaaat  | tggcatagta  | taatatgggt  | atcagcaagt  | 90900 |
| tgttgcactt | tattcagagc  | tttacactag  | gcaggggtgg  | gctttacttt  | tgactctaata | 90960 |
| caatagggtg | gactactaca  | ctagccaaag  | ctggcatcct  | tgtgggtctct | gtggagtaac  | 91020 |
| gtgagtagca | ttataattta  | catcccccat  | aacaaatgat  | ccaagagagt  | atgtgatcaa  | 91080 |
| tgacagagaa | ctattgtctt  | ttattatctg  | atttcacatg  | taacatgcca  | tcactttctgc | 91140 |
| catattttat | tggccacaca  | gaccaatctt  | ggtaaaggac  | ggaaagggac  | tgcaacaagac | 91200 |
| catgcattca | aggaggcaga  | gatcactggg  | ggccatcttg  | ggaggctggc  | taccacaccc  | 91260 |

## seqlist.ST25.txt

accataaata gaaaaccaga attatttgcc aaaaatagac ttaaccaca aaaatgaata 91320  
 ccatataaac aaaacaaagt cacaaaatth cagctgactt gaagactcat ctttctatta 91380  
 gttagaaagg gaattttacca agtagtagaa gacacaggaa ctccaaaata agatatctca 91440  
 ttgtcttatac agaagggttg acaggaaaat gggctgggca ctgtggctca aggaaaatgg 91500  
 gctgtgcact gtggctcaca cctattatcc cagcaatttg ggaggccaag atgggaggat 91560  
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 aaatggttca ctgatttgtg tacttttttt atatgtgaat actgcaataa ggttttttat 93000  
 tgcactgttt tcagtttgtt gaacagaaaa agggagactc tttttgttgt ttttgacctc 93060  
 tcgacctcat aatggcaatg taggcaagaa cattccctca aggcaatacc tgtgggtgtc 93120  
 ttggttatat tccaccgaa acaaagacag aggctgtcct tataaaatat gtttgaagac 93180  
 ctgtgaaact ttaatagtgc cttttattcc atataggaca gcacaattac ctatgtgctg 93240

seqlist.ST25.txt

|  |       |
|--|-------|
| gaaggaatga ttgcatcatc gataaaattc gaagaaaaaa ctgccagca tgccgctatc   | 93300 |
| gaaaatgtct tcaggctgga atgaacctgg aaggtaatat aaatatctga aagcaattgt  | 93360 |
| ttgtctctgt agcttataaa aatttatcat ttctactttg aagatacacg taagcagatg  | 93420 |
| taattaatgt agtcagttca gtatatatat gcttgactag cataatgtta ctgccaata   | 93480 |
| aaaatgggaa atttttttca tgaatatgtc atattgtttg tttatccacc agttcttctt  | 93540 |
| acacacactg aattcagtac agccagacta tatacaaaga aaggaaatta tgtaataatg  | 93600 |
| aaacttacac aacatgcagc aactttatta ttcttactcc ttttttcagc ctcaaaacta  | 93660 |
| ttccctaggg ttggaaatgt ttctgtatca gacatattta catgtccatt tttctgtttg  | 93720 |
| ccttttaaaa gcataccttt tacttgagga tctgtgtttt attacagatc ttcaagcggg  | 93780 |
| gggtggtggg aaaaaaaaaa cctcaaggaa gaactggatg ggttttgttt tggttttcaa  | 93840 |
| gtaaagaaga aacctgggccc ggggtgcagt gctcacgcct gtaatccccg aagtttgtga | 93900 |
| gaatccttct gtctagtttt tatgtgaaga tattaccttt tccaccgtag gcctcaaagc  | 93960 |
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